

# Japan's Development Cooperation to Thailand - The Present and Future Perspective

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## I. Introduction

In speaking of Japan's Official Development Assistance (ODA), the following two recent development of ODA Policy Discussion might be better referred in order to have your attention to Japanese Aid Policy Framework under which Japan's ODA is steadfastly making efforts to expand.

Firstly, Japan's ODA Charter being established for the first time ever by Miyazawa Cabinet in last July, 1992 becomes clearcut Guideline of ODA to implement it more effectively and efficiently. The Charter states Japan's Basic Philosophy attaching central importance to the support for the self-help efforts of economic development. It also mentions Japan's ODA to be provided in accordance with Four Principles and the Five Basic Development Issues such as **(1) Global Issues as Environment, Population (2) Basic Human Needs (3) Human Resource Development and Research Cooperation for Technology (4) Infrastructure Improvement (5) Support for Private Sector.**

Secondly, Policy Speech by Prime Minister Miyazawa on the title of [The New Era of the Asia-Pacific and Japan-Asean Cooperation ]

was delivered at Bangkok on the 16th of January, this year on the occasion of his official visit to Four Asean Country. This Speech being regarded as Japan's Basic Foreign Policy Statement after the collapse of the cold war structure is stressing on the Four Points **(1) Cooperation for Peace and Stability (2) Cooperation for an Open Economy and Dynamic Development (3) Cooperation for Global Issues and (4) Cooperation to Indochina.**

With keeping these developments about Japan's ODA Policy in mind, today I should like to talk about the following topics. First of all, I would like to briefly overview the past and the present status of Japanese Cooperation in Thailand during the last three decades. Secondly, I like to discuss Future Issues and Prospect for Japan-Thai Cooperation with some reference to the Northeast Region of Thailand.

## II. Overviews of Japan's ODA to Thailand in the Past Three Decades

Thailand has always been one of the most important recipients among developing coun-

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tries in the course of Japan's history of ODA. Since 1970s till 1990, she has been placed among top five countries receiving a total of US\$ 406 million including grant and concessional loan which accounts for 4.8% of Japan total bilateral aid in 1991. The composition of Japan's ODA in 1991 shown in Appendix is that grant is gradually declining while yen loan cooperation is steadily increasing. Technical Cooperation to Thailand is keeping the third largest and be expected to remain this trend in the future.

In 1980s, Japan's ODA has extended to Thailand in more systematic manner through adhoc high-level policy dialogue and annual consultation between both governments. Both sides have regularly reviewed aid performance and discuss updated requirements of cooperation for mutually interested development problems and bilateral relations. In the course of 1990s, Japan's ODA will be standing at the crossroad because of the fact that Thailand will be moving steadily towards economic take-off and attained high middle income country with dynamism.

I believe that Japan-Thai relation through ODA cooperation will be keeping enhanced with new vision and parternership with a view to supporting of Thai's self-reliance efforts for tackling various domestic problems so as to moving on to economic take-off. As Japan's ODA Charter suggested that our experiences, knowledge and technology Thai-Japan ODA cooperation having been developed will be in better use and collaboration for helping other less developed countries.

For overviewing Japanese ODA Cooperation, I should like to divide my discussion into three parts just for convenience as follows:

### **1st Stage of Cooperation to Initial Process of Industrialization in 1960s (1960-early 1970)**

Under the first National Development Plan with strategies on security and development, a number of large scale infrastructure development such as road construction and power development had been started and promoted by the World Bank and USAID Programs which had played vital role in nation-building.

During this period, Japan was in the process of consolidating of economic cooperation

through establishment of OECF in 1961 and OTCA in 1962 (JICA Predecessor). First Yen Loan Aid in 1967 with a total of ¥ 21.6 billion was extended to energy and power projects as Nam Pong Hydropower Plant and distribution system and Sirikit Dam construction.

Technical cooperation with effective combination of expert service, training in Japan and equipment supply, which is called project-type cooperation had been implemented in several key sectors such as human resources development in telecommunication (Predecessor of KMITL), road construction training at Songla and Surat Tani, Sericulture Development Center at Korat, and noteworthy cooperation for various fields of medicine such as tropical medicine, cancer research, polio and virus research, etc. In addition to technical assistance program, capital grant aid scheme was established in 1971 and first one granted to construction project on telecommunication facility between Thailand and Laos.

### **2nd Stage of Cooperation for Expantion of Industrial Development in parallel with Regional and Rural Development (1975-1985)**

During the 3rd and 4th National Development Plans, policy priority was stressed on regional development, human resource development and employment creation, so that aid donors including Japan had tried to shift their priorities towards basic human needs (BHNs) approach.

Japan became top donor to Thailand in early 1970s and gradually diversified fields of cooperation with due consideration to regional distribution.

Khon Kaen Institute for Skill Development in 1977, Regional Agricultural Cooperative Training at Nakorn Rachachima in 1984, Northeast Agricultural Development Center in 1983, and Nurse Education at Mahasarakum in 1981, etc.

Grant aid had been effectively extended to support above-mentioned technical cooperation. Furthermore, along with these cooperations, independent grant aid projects in significant scale in compliance with rural poverty needs of the regions, poverty eradication projects, new village construction, remote areas electrification, rural water supply, community health etc. were

implemented mostly in this Region.

Yen loan aid is also taken up in many fields, for example, rural electrification and small-scale irrigation. New financial scheme-so called two step loan through Industrial Financial Cooperation of Thailand(IFCT) to promote small-scale industries and export industries as well and Bank for Agricultural Cooperatives (BAAC) to assist small farmers.

### **3rd Stage of Cooperation for Self-Sustained Development, Promotion of Mutual Understanding, Broadening of Interdependence aiming at Balanced Economic Relation (1985-early 1990s)**

Economic cooperation in this period has much strengthened with wider perspective because of increasing interdependence of economic relation by way of foreign trade and direct investment to Thailand.

In 1986, Japanese Government sent high-level policy dialogue mission headed by Dr. Saburo Okita, Former Foreign Minister of Miki Cabinet, to set broader economic agenda and priority areas in order to improve mutual relationship. Three years after in 1989, taking accounts of Thailand's faster economic growth and consequent needs of review over aid policy and priority, high-level economic cooperation mission headed by Ambassador Mikanagi has been here to prioritize Japanese ODA on to the five areas which have come up with today's cooperation that is, **(1) Human Resource Development Cooperation** for strengthening of primary and secondary science education and higher education on science and engineering **(2) Infrastructure Development Cooperation** for improvement of high-grade economic infrastructures with due much attention to capability of overall management **(3) Environmental Conservation Cooperation** for pollution control and preservation of natural resources **(4) Regional and Rural Development Cooperation** for basic human needs, agricultural development and decentralization of industries **(5) Export and Investment Promotion Cooperation** for supporting of private sector.

Human resource development is the one of the highest cooperation programs. For project identification and confirmation. JICA study on education sector had been conducted. In addition

to on going projects such as Ubon Institute for Skill Development, Kasesart Agricultural Research, KMITL etc., new projects such as Thammasat Faculty of Engineering, Patumwan Institute of Technology, Regional Higher Education for Science under Dept. of Teachers' Education are granted. Some of them already started and will be implemented in 1993. Japanese side is keeping study on feasible project in primary and secondary science education.

I firmly believe that HRD cooperation in such a systematic and carefully thought out approach will help improve Thai science and engineering education on the long terms perspective through such core/model projects.

We are very much concerned with environmental issues in Thailand. Urban and industrial pollution control is becoming the most urgent concerns. Serious degradation and depletion of natural resource, in particular, forestry and fishery will endanger definitely future sustainable development of Thailand.

In this connection, we are strengthening our support to Thai Initiative for environmental measures. At present, JICA is cooperating Environmental Research and Training Center for upgrading of environmental perponnells for control and monitoring as well as research activities. This Center has been established with Japanese Grant as the first environmental cooperation center in the world which may become model for the other countries like Indonesia and China soon. The Center, thus, is expected to contribute not only to domestic environmental problems-solving, but also to assisting with neighbouring countries as regional center in the future.

Aforeorestation Research and Training Project (1981-1993) having been implemented for the last twelve years so as to conduct basic and applied research on aforeorestation and management system is advancing onto new field-project with a view to dissemination and extension of these technology for reforestation by local people at the most seriously affected regions in the Northeast. It is called "Reforestation and Extension Project to be carried out for 1992-1996 at Mahasarakham (Main Center), Nakhon Ratchasima, Udonthani and Yasothon."

Along with these full-scale cooperation projects, JICA is running pilot projects on

relatively modest scale to cope with industrial waste water control and sewerage water quality inspection.

Yen Loan Aid is stepping up to support environmental activities. The latest Loan Agreement in 1992 stresses on environmental projects with a total amount of commitment about ¥ 28.8 billion which accounts for 20% of Grant commitment of the year.

I should like here briefly to mention our ODA cooperation with regard to regional and rural development. As being touched our efforts on the issues in the course of ODA cooperations in 1970s and the current decade, we feel that our cooperations for this objective have been tangibly supportive for improvement of rural well-being and quality of life by means and ends of project activities such as direct provision of basic infrastructure of road, running water supply, irrigation, electricity under grant and loan aid.

Our technical cooperation is also playing important role in development of institutional capability of tackling indigenous and persistent problems and difficulties through various project activities as basic and applied research on agriculture issues, upgrading technical training for better employment opportunities, health care programs etc.. I strongly believe that those projects having been implemented in the Northeast Region, for example, ADRC, Khon Kaen Institute for Skill Development, and Community Health Projects are marked as successful ones that have positively contributed to regional and rural development in many respects.

Among other things, I would like to just briefly point out some other important project cooperations on going to support upgrading of private sectors. The Projects are primarily designed for increasing of Thai international competitiveness through training and transfer of industrial technology, that is, Metal Works Industrial Development Institute, Industrial Standardization & Testing, National Computer Software Training, and Northern Ceramic Technology Development Centre, and National Productivity Promotion.

### **III. Future Issues and Prospect for Thai-Japan Cooperation with special reference to the Northeast Region**

Under the current 7th National Development Plan, it is firmly expected to grow Thai economy steadily moving towards economic take-off attaining GDP per capital income more than US \$ 3,000., middle level income country.

As discussed that, while Thailand is going to sustain the current process of rapid transformation of the society, she must try to overcome several emerging problems and constraints that remain ahead. In fact, Thai government has already been aware of top priority issues as income distribution by way of aggressive decentralization of industrial activities, environmental sustainability, economic and social infrastructure and human resources development.

In 1992, Thai government reviewed overall economic relation between two countries and submitted revised version on [Restructuring of Japan-Thai Economic Relation] recommending seven important areas for future Japanese cooperation that are covering broader perspective and implication. (please refer to appendix)

Japan's ODA cooperation is maintaining basic directions and priorities for supporting Thai self-reliant and sustainable development efforts on medium and long-terms perspective. As Mr. Miyazawa stressed in his Bangkok Policy Statement that Japan's ODA may continue to expand in accordance with its ODA Charter and Japan also would like to move forward with ASEAN countries how to provide better investment climate in a broader sense including development of infrastructure, supporting industries, human resources development and institutional improvement, and common global issues on environment.

As I mentioned in the beginning that Japan's ODA is standing now at the cross-road in the sense that it should be more conducive and flexible to meet with Thai self-sustaining efforts by effective combination of technical

cooperation programs and financial cooperation. Japanese grant aid will be terminated in 1994 with a success. This is only success story ever known that the country like Thailand who have been traditionally top recipient of Japanese grant aid is going to graduate soon.

Technical cooperation with Thailand, I firmly believe, must keep at least present scale and level that is the 3rd largest only after Indonesia and China. Quality of cooperation and modarity must be improved by mutual interests and consultation.

The following points should I like to suggest and emphasize.

1. In order to maintain on going level of technical cooperation, quality of project proposal reflecting actual needs of Thailand must be innovated. Cooperation for Joint Academic and Research with more emphasis on software activities and institutional aspects better to consider.

2. Cultural grant for promoting cultural cooperation and Small-scale Grant aiming at helping local NGOs be better expanded as an instrument of promoting better mutual understanding as well as thought-out grassroots cooperation.

Lastly, I would discuss new dimension of cooperation between Japan and Thailand in the context of development of the Northeast Thailand.

At present, JICA is conducting development survey concerning Lower Northeast and Upper East Region under the request of NESDB. Final report is expected to prepare soon or later in this July. This study is to formulate strategies and action-oriented plans to develop this Region in terms of linkage with Eastern Seaboard and also exploration of emerging opportunities and potentiality as gateway to the Indochina. This is an new approach taken by JICA to propose this study preparing comprehensive plan and thereafter viable projects to be considered by both sides. In the near future, Upper Northeast is becoming focal point about Thai-Laos development cooperation.

Thai government is striving for helping neighbouring countries', in particular, Indochina countries as donor of international cooperation through DTEC. This Initiative is very constructive and timely. Thai development experience and technology be highly useful and the most appropriate when it comes to agriculture including rural development, medecine and health, and vocational education and training. Fortunately enough, there are several leading institutions at the Northeast in respective fields which have been developed in the decades under Thai-Japan technical cooperation programs. Some of them like Mahasarakham Nurse College have been actively cooperating international training programs for Indochina and ADRC is preparing soon for similar programs.

This sort of Partnership Program of Thai=Japan for Indochina must be expanded and strengthened as soon as we can in order to meet with enoumous needs of urgent reconstruction and development. Those institutions centering around Khon Kaen University are able to play vital role as the center of excellence for giving training and education, despatching of local experts, procurement of local goods and services under foreign aid programs of both governments.

I should like to emphasize once again that in the years to come the Northeast Region as a whole is certainly taking more advantage of its historical and geographical positions and of revitalizing regional and local economy through internationalization and borderless economic and academic everlasting relation with neighbouring countries. Thai-Japan Partnership for Cooperation to Indochina is on the verge of becoming mutually keen interests that is Mr. Miyazawa calling upon as the New Era of the Asia-Pacific and Asean-Japan Cooperation.

**Thank you very much for your attention.**

### A. Japan's ODA Disbursements to Thailand

(\$ million)

Year	Grants			Loan Aid		Total
	Grant Aid	Technical Cooperation	Total	Gross	Net	
1985	76.54	40.69	117.23	181.76	146.87	264.10
1986	71.56	54.19	125.76	192.46	134.65	260.41
1987	62.92	72.64	135.56	235.24	166.88	302.44
1988	44.15	94.28	138.44	298.51	222.19	360.62
1989	107.78	96.69	204.47	360.76	284.38	488.85
1990	76.02	96.34	172.36	330.76	246.21	418.57
1991	51.03	100.82	151.85	363.52	254.32	406.17
Total	765.59	805.68	1,571.29	3,133.89	2,501.83	4,073.11

### Major Recipients of Bilateral ODA by Types

(Net Disbursement \$ million %)

Rank	Country	1990		Types		
		Total	Share	Grant Assistance	Technical Cooperation	Loans
1	Indonesia	867.78	12.50	58.38	108.68	700.72
2	China	723.02	10.42	37.82	163.49	521.71
3	Philippines	647.45	9.33	91.15	61.98	494.31
4	Thailand	418.57	6.03	76.02	96.34	246.21
5	Bangladesh	373.57	5.38	131.66	19.98	221.94
6	Malaysia	372.62	5.37	1.77	58.54	312.31
7	Turkey	324.21	4.67	0.34	15.25	308.62
8	Pakistan	193.55	2.79	56.06	11.54	125.96
9	Sri Lanka	176.07	2.54	74.39	16.58	85.10
10	Poland	149.85	2.16	-	2.12	147.73
	Total for 10 countries	4,246.69	61.20	527.59	554.50	3,164.61
	World's Total	6,939.56	100.00	1,374.05	1,645.35	3,920.16

**Source:** Japan's ODA Annual Report, Ministry of Foreign Affairs 1991

## THAILAND

(Hundred Million Yen)

Fiscal Year	Loan Aid	Grant Aid	Technical Cooperation
1985	<ul style="list-style-type: none"> <li>● Laem Chabang Port Project (II) (122.83)</li> <li>● Laem Chabang Industrial Estate Project (29.22)</li> <li>● Nong Kho-Laem Chabang Water Pipeline Project (13.63)</li> <li>● Map Ta Phut Port Project (II) (160.45)</li> <li>● Map Ta Phut Industrial/Urban Complex Project (32.07)</li> <li>● Bangkok Water Supply Improvement Project (Stage II, Phase 1-A2) (95.46)</li> <li>● The Loan to IFCT (Modernization of Export Industry) (40.59)</li> <li>● Mae Kuang Irrigated Agriculture Development Project (II) (91.97)</li> <li>● Khon Kaen Water Supply Expansion Project (22.65)</li> <li>● The Loan to BAAC (VII) (10.13)</li> <li>● Small Scale Irrigation Program (Stage IV) (52.93)</li> <li>● Rural Public Telephone Expansion Project (12.96)</li> <li>● Village Electrification Project (Phase II-2) (35.88)</li> <li>● Mae Moh Power Plant Project (Unit 8) (10.00)</li> </ul> <p>(Total 720.77)</p>	<ul style="list-style-type: none"> <li>● Project for the Construction of the Social Education and Cultural Center (28.60)</li> <li>● Project for the Expansion of King Mongkul's Institute of Technology (21.34)</li> <li>● Project for the Establishment of the National Institute of Health (14.56)</li> <li>● Project for the Construction of the National Animal Health and Production Institute (5.72)</li> <li>● Project for the Construction of National Waterworks Technology Training Institute (11.73)</li> <li>● Project for the Establishment of the Metalworking and Machinery Industries Development Institute (10.04)</li> <li>● Books for Education and Research to the Institute for Japanese Studies of Thammasat University (0.20)</li> <li>● Aid for Increased Food Production (32.00)</li> <li>● Equipment for Preserving the Ancient City of Sukhotai to the Ministry of Education (0.49)</li> <li>● Computer System and Audio-Visual Equipment to the Office of His Majesty's Principal Private Secretary (0.47)</li> <li>● Emergency Relief (6.67)</li> </ul> <p>(Total 131.82)</p>	(Total 59.88)
1986		<ul style="list-style-type: none"> <li>● Malaria Control Program (4.67)</li> <li>● The Educational &amp; Public Services Broadcasting Station Channel 11 (20.62)</li> <li>● Aid for Increased Food Production (32.00)</li> </ul>	

Fiscal Year	Loan Aid	Grant Aid	Technical Cooperation
		<ul style="list-style-type: none"> <li>● Emergency Relief (6.50)</li> <li>● Construction of National Waterworks Technology Training Institute (6.21)</li> <li>● Establishment of Metalworking and Machinery Industries Development Center (19.11)</li> <li>● King Mongkut's Institute of Technology (7.12)</li> <li>● Project for Social Education &amp; Cultural Center (23.22)</li> <li>● Equipment for Sports Science Studies to the Ministry of Education (0.48)</li> <li>● Project for the Establishment of the Center for Maize Quality Improvement (6.80)</li> <li>● Equipment for Biotechnological Research to Mahidol University (0.45)</li> </ul> <p style="text-align: right;"><b>(Total 127.18)</b></p>	<b>(Total 60.56)</b>
1987	<ul style="list-style-type: none"> <li>● Mae Moh Power Plant Project (Unit 9) (9.55)</li> <li>● Project for State Railway of Thailand (Passenger Coaches Procurement (II)) (39.37)</li> <li>● Nakhon Ratchasima Water Supply Project (28.78)</li> <li>● Water Supply Improvement Project for Four Provincial Cities (7.14)</li> <li>● Power Distribution Systems Reinforcement Project (Third Stage Phase III) (68.20)</li> <li>● New Rama VI Bridge Construction Project (55.99)</li> <li>● Large Swamp Inland Fishery Project (34.29)</li> <li>● Telephone Network Expansion Project (310.12)</li> <li>● Mae Kuang Irrigated Agriculture Development Project (III) (28.05)</li> </ul>	<ul style="list-style-type: none"> <li>● Establishment of UBON Institute for Skill Development (23.37)</li> <li>● Establishment of Ayuttaya Historical Study Center (9.99)</li> <li>● Construction of Nakhon Si Thammarat Fishing Port (12.12)</li> <li>● Bang Nara Irrigation and Drainage Project (detailed design) (0.94)</li> <li>● Improvement of Existing Pumping Stations for Irrigation and Drainage (15.14)</li> <li>● Urgent Boreholes Project in Drought-Stricken Rural Areas (13.39)</li> <li>● New Village Development Programme (4.53)</li> <li>● Improvement of Equipment at the Institute of Biotechnology and Genetic Engineering (2.50)</li> </ul>	

Fiscal Year	Loan Aid	Grant Aid	Technical Cooperation
	<ul style="list-style-type: none"> <li>● Laem Chabang Industrial Estate Project (II) (30.03)</li> <li>● Tourism Development Program (62.52)</li> <li>● The Loan to IFCT (II) (50.00)</li> <li>● The Loan to BAAC (VIII) (36.72)</li> <li>● Local Cost Finance (57.48)</li> </ul> <p style="text-align: center;"><b>(Total 818.24)</b></p>	<ul style="list-style-type: none"> <li>● Improvement of Equipment at Urolithiasis Research Center (5.29)</li> <li>● Improvement of Equipment at the Educational Broadcasting Production Center of Sukhothai Thammathirat Open University (3.97)</li> <li>● Aid for Increased Food Production (25.00)</li> <li>● Disaster Relief through WFP (6.50)</li> <li>● Educational and Cultural TV Programmes to the Public Relations Department (0.48)</li> <li>● Electronic Engineering Equipment to Chiang Mai University (0.49)</li> </ul> <p style="text-align: center;"><b>(Total 123.22)</b></p>	<b>(Total 81.37)</b>
1988	<ul style="list-style-type: none"> <li>● Sriracha-Laem Chabang Railway Project (10.13)</li> <li>● Sattahip-Map Ta Phud Railway Project (30.02)</li> <li>● Highway Sector Project (40.85)</li> <li>● The Road Improvement Program of Three Major Routes (125.17)</li> <li>● Cholburi-Pattaya New Highway Construction Project (41.17)</li> <li>● Telephone Network Expansion Project (Local Cable Network) (244.55)</li> <li>● Nong Pla Lai Dam Project (43.57)</li> <li>● Map Ta Phud-Sattahip Water Pipeline Project (14.59)</li> <li>● Bhumibol Hydro Power Plant Rehabilitation (24.25)</li> <li>● The Power Distribution System Reinforcement Project (VIII) (61.48)</li> <li>● Bangkok Water Supply Improvement Project (Tunnel Rehabilitation) (29.85)</li> </ul>	<ul style="list-style-type: none"> <li>● Bang Nara Irrigation and Drainage Project (8.88)</li> <li>● Project to Improve Equipment at the Educational Broadcasting Program Production Center of Sukhothai Thammathirat Open University (2.71)</li> <li>● Project to Construct the Nakhon Si Thammarat Fishing Port (13.00)</li> <li>● Project to Construct Industrial Standardization and Industrial Metrology Testing Service Center (26.48)</li> <li>● Project to Modernize Public Emergency Call Centre Communication System (9.91)</li> <li>● Project to Improve Equipment of the Flood Control Center (9.24)</li> <li>● Aid for Increased Food Production (15.00)</li> <li>● Project to Rehabilitate South Thailand (7.38)</li> </ul>	

Fiscal Year	Loan Aid	Grant Aid	Technical Cooperation
	<ul style="list-style-type: none"> <li>● Bangkok Water Supply Improvement Project (IV) (43.80)</li> <li>● The Loan to BAAC (IX) (48.75)</li> </ul> <p style="text-align: right;"><b>(Total 758.18)</b></p>	<ul style="list-style-type: none"> <li>● Disaster Relief through WFP (6.50)</li> <li>● Disaster Relief through WFP (0.07)</li> <li>● Disaster Relief (0.27)</li> <li>● Equipment for Archeological Survey (0.39)</li> </ul> <p style="text-align: right;"><b>(Total 99.83)</b></p>	<b>(Total 83.73)</b>
<b>1989</b>	<ul style="list-style-type: none"> <li>● Power Distribution Systems Reinforcement (Fourth Stage Phase III) (54.88)</li> <li>● Normal Rural Electrification (II) (70.95)</li> <li>● Bangkok-Chon Buri Road Construction (I) (154.97)</li> <li>● Outer Bangkok Ring Road (East Portion) Construction (129.58)</li> <li>● Klong Sip Kao-Kaeng Khoi Railway (81.58)</li> <li>● Telephone Network Expansion (Local Cable Network) (III) (153.18)</li> <li>● Engineering Service for Nong Pla Lai-Nong Kho Water Pipeline (2.04)</li> <li>● Laem Chabang Port (III) (64.36)</li> <li>● IFCT Loan (50.00)</li> <li>● BAAC Loan (50.00)</li> </ul> <p style="text-align: right;"><b>(Total 811.54)</b></p>	<ul style="list-style-type: none"> <li>● Project for the Improvement of Ransit Canal (3.60)</li> <li>● Project for the Construction of an Industrial Standardization. Testing and Training Center and Industrial Metrology Testing Service Center (15.94)</li> <li>● Bang Nara Irrigation and Drainage Project (26.04)</li> <li>● Project for the Establishment of an Environment Research and Training Center (14.52)</li> <li>● Project for Bridge Construction in a Rural Region in Northeast Thailand (10.52)</li> <li>● Project for the Improvement of Identification Equipment (5.93)</li> <li>● Rama IV Viaduct Construction (0.98)</li> <li>● Disaster Relief (6.59)</li> <li>● Disaster Relief (0.25)</li> <li>● Aid for Increased Food Production (10.00)</li> <li>● Educational and Cultural TV Program to the Public Relations Development, Office of Prime Minister's of Thailand (0.47)</li> <li>● Reflecting Telescope to Chulalongkorn University (0.49)</li> <li>● Small-Scale Grant Aid (4 projects) (0.08)</li> </ul> <p style="text-align: right;"><b>(Total 95.41)</b></p>	<b>(Total 80.37)</b>

Fiscal Year	Loan Aid	Grant Aid	Technical Cooperation
1990		<ul style="list-style-type: none"> <li>● Bang Nara Irrigation and Drainage Project (3.75)</li> <li>● Project for the Construction of Bridges in Rural Region in Northeast Thailand (12.29)</li> <li>● Project for the Establishment of Environmental Research and Training Center (8.62)</li> <li>● Project for the Construction of Rama IV Viaduct (26.36)</li> <li>● Project for Supplying Equipment in Chulalongkorn University (7.01)</li> <li>● Project for Supplying Equipment in Bioscience Laboratories in Chulabhorn Research Institute (4.87)</li> <li>● Project for Providing Equipment in Land and Water Conservation Center (3.20)</li> <li>● Audio-Visual Equipment for the Institute for the Promotion of Teaching Science and Technology (0.46)</li> <li>● Small-Scale Grant Aid (3 projects) (0.10)</li> </ul> <p><b>(Total 66.66)</b></p>	<b>(Total 76.53)</b>

## Appendix

### Japan's ODA Projects in the Northeast of Thailand (project-type technical cooperation)

Name of the Project	Period of Cooperation
1 Health Project at National Hospital	8,1966 - 7,1969
2 Sericulture Development Center	3,1969 - 3,1980
3 Family Planning	7,1974 - 3,1989
4 Regional Community Health	5,1976 - 3,1984
5 Animal Health	11,1976 - 11,1979
6 Khon Kaen Institute for Skill Development	12,1977 - 12,1981
7 Nurse Education	8,1980 - 7,1987
8 Afforestation Research and Training (Phase I)	7,1981 - 7,1986
9 (Phase II)	7,1986 - 7,1993
10 Primary Health Care	10,1982 - 9,1989
11 Northeast Agricultural Development Research (Phase I)	12,1983 - 12,1989
12 (Phase II)	12,1989 - 12,1993
13 Regional Agricultural Cooperative Promotion	7,1984 - 7,1991
14 Ubon Institute for Skill Development	10,1988 - 9,1993
15 Family Planning and Maternal and Child Health	6,1991 - 5,1996
16 Community Health	9,1991 - 8,1996
17 Reforestation and Extension	4,1992 - 3,1997

### Recommendation for Long-term Restructuring of Thai-Japan Economic Relations by Thai Side 1992

- 1 Investment and Industrial Development on straterically important industries such as Engineering, Electronics, Iron and Steel, Textiles
- 2 Decentralization of Industries onto Growth Poles
- 3 Technological and Human Resources Development
- 4 Environment Issues
- 5 Thailand' Role as the Center for the development of the Indochina
- 6 Asean-Japan Development Fund
- 7 Establishment of Southeast Asia Development Bank